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Applicant: Ultimate Support Systems, Inc.
Inventors: Donald H. Eason
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Title: Telescoping Member Methods and Apparatus
Attorney Docket: US-CollarPCT
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REPLY TO WRITTEN OPINION
PURSUANT TO PCT RULE 66.3

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Commissioner for Patents
P.O. Box 1450
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Sir:

This communication is in response to the Invitation to Reply to the Written Opinion mailed on 16 November 2005. In that Written Opinion, the International Preliminary Examining Authority (IPEA) expressly advanced novelty concerns as to claims 1-41 as based on US publication number 2002/0030146 (hereinafter referred to as Akaike) and US Pat. No. 2,817,548 (hereinafter referred to as Uthemann). In response to that Written Opinion, the Applicant explains as follows:

First, to facilitate an understanding of what it is precisely that each the Akaike and Uthemann references does disclose, the Applicant explains as follows:

I. Overview of the Technology of the Cited References:

Akaike: The Akaike apparatus operates by way of compression of a stopper (35) against one tube that is nested inside another tube. Such compression of this stopper occurs upon appropriate rotation of a pivotable structure (55) referred to as an "operating tab portion" (see par. [0042] of the Akaike publication). In fact, the only structure of the Akaike apparatus that, upon activation, exerts a compression force sufficient to prevent axial motion

in both directions, of one tube relative to the other tube, is the stopper (35). As can be seen from Fig. 1, it neither partially surrounds anything, nor is compressed against more than one tube.

For purposes of clarity, the Applicant would also point out that parts 62 and 64 of the Akaike apparatus are not compressed upon activation of the "operating tab portion" (55) so as to prevent axial motion in both directions of one tube relative to the other. Instead, parts 62 and 64 form the "displacement prevention means" and, as paragraphs [0044] and [0045] explain, these parts merely prevent "slipping off" or complete disengagement of one tube from the other that might otherwise occur due to overextension during a lengthening adjustment (of one tube relative to the other). These parts come into play only when the tubes are at or near their maximum relative extension, as it is clear from the fact that they are both always established at the end of their respective tube (parts 21 and 22).

Uthemann: The Uthemann apparatus operates by way of compression of a clamping member (3) (and, in one embodiment, an attached resilient layer (16)) towards an inner tube of smaller diameter (2) so as to retain an axial position of that tube relative to a larger diameter tube (1) in which it is established. Importantly, the sleeve of Uthemann (9) is not established so that, during compression, any of its surfaces are forced towards a site on the smaller tube (2) that is not within the larger tube (1).

II. Examiner's Concerns:

The examiner is of the opinion that each the Akaike and the Uthemann reference discloses the subject matter of all claims of the instant application, and that the claims lack inventive step over the Akaike and Uthemann references. However, after a proper understanding of each of these references, it is clear that all claims of the instant application describe technology that is not only novel, but that also includes inventive step.

III. Novelty Relative to the Akaike Reference:

In response to the examiner's novelty rejection of all claims in the case (claims 1-41), the Applicant respectfully presents immediately following some of the ways in which the subject matter of each of the claims in the case is novel relative to the Akaike reference.

a. Claims 1-22:

Claims 1-22 of the instant application are not disclosed by the Akaike reference. The following are some of the limits of each of claims 1-22 (found explicitly in apparatus claim 1) that are not taught, disclosed or even suggested by the Akaike reference. Additionally, a brief explanation is provided as to the non-disclosure in the Akaike reference of the specific limit:

- *“a compression sleeve element adapted to at least partially surround a first portion of a first elongated member and a second portion of a larger elongated member”* –

One example of the compression sleeve element as appearing explicitly in claim 1 of the instant application is part 2 as shown in Fig. 1. It is, as the name suggests, the part of the apparatus that can apply the compressive force that retains members in a desired relative position. Further, it is a sleeve, and as claim 1 makes clear, it at least partially surrounds other parts. Indeed, page 3, lines 29-30 of the instant application states that “The term “at least partially surround” connotes at least partial, opposing establishment of one part or structure around another (see, e.g., Fig. 1).” However, it is clear from the Akaike reference, as discussed above, that the part that it uses to compress and retain (part 35) does not partially surround anything and certainly does not reflect any “opposing establishment” – it compresses against merely a portion of only one side of only the inner one of the two members. The stopper (35) of the Akaike reference does not “at least partially surround” other parts, and it certainly cannot be said that it at least partially surrounds “a first portion of a first elongated member and a second portion of a larger elongated member.”

- *“a compression enhancement element established so that, upon activation, it forces said larger elongated member compression surface towards said larger elongated member, and said first elongated member compression surface towards a site on said first elongated member that is not within said larger elongated member”* – As reflected in Fig. 3 of the instant application, during compression, a surface of the sleeve is forced against a site on the first (e.g., inner) member that is not within the larger (e.g., outer) member. However, with a proper understanding of the Akaike reference, it is clear that, during compression, no surface whatsoever is forced against a site on the smaller member that is not within the larger member. More particularly,

the only part of the Akaike reference that could arguably be (or form a part of) a “compression enhancement element” is part (55), the “operating tab portion.” But upon activating it, it does not force any compression surface whatsoever towards “a site on said first elongated member that is not within said larger elongated member.” Indeed, the stopper (35) of Akaike, upon activation of the “operating tab portion” (55), does not have any surface that moves towards a part of the smaller diameter member (22 of Akaike) that is not within the larger diameter member (21 of Akaike). Even if the Akaike reference were deemed to include a compression surface as appears in claim 1 of the instant application and dependents, such surface in the Akaike apparatus would clearly move only towards a site on the smaller diameter tube that is within the larger diameter tube.

Applicant would note that it is this claim element - “*a compression enhancement element established so that, upon activation, it forces said larger elongated member compression surface towards said larger elongated member, and said first elongated member compression surface towards a site on said first elongated member that is not within said larger elongated member*” - which, in many embodiments, may play a role in avoiding the need to create hole (34) in the larger tube found in Akaike (through which Akaike’s stopper (35) passes) as shown in Akaike’s Fig. 1. Of course, avoiding the need to breach a tube (or other elongated member) in such fashion is a desirable manufacturing attribute.

- a “*compression sleeve element [that] is separated along at least one split*”. It is also clear that the Akaike reference does not disclose a compression sleeve element that is “separated along at least one split”. As discussed above, what might appear to be a split compression sleeve element (either 62 or 64 of the Akaike reference) is not a compression sleeve element at all.

Because neither the Akaike reference, nor indeed any other reference cited by the examiner, discloses all limits of claim 1, a novelty rejection of claim 1 and its dependencies based on the Akaike reference is inappropriate.

b. Claims 23-41:

In similar fashion, and for analogous reasons, the subject matter described by claims 23-41 of the instant application are also not disclosed by the Akaike reference. The following are some of the limits of each of claims 23-41 (found explicitly in method claim 23) that are not taught, disclosed or even suggested by the Akaike reference. Additionally, a brief explanation is provided as to the non-disclosure in the Akaike reference of the specific limit:

- *“establishing a compression sleeve element at least partially around a first portion of a first elongated member and a second portion of a larger elongated member”:*

As explained above, one example of the compression sleeve element as appearing explicitly in claim 23 of the instant application is part 2 as shown in Fig. 1. It is, as the name suggests, the part of the apparatus that can apply the compressive force that retains members in a desired relative position. Further, it is a sleeve, and as claim 23 makes clear, it at least partially surrounds other parts. Indeed, as stated above, page 3, lines 29-30 of the instant application states that “The term “at least partially surround” connotes at least partial, opposing establishment of one part or structure around another (see, e.g., Fig. 1).” However, it is clear from the Akaike reference, as discussed above, that the part that it uses to compress and retain (part 35) is not established to partially surround anything and certainly does not reflect any “opposing establishment” – it is established to compress against merely a portion of only one side of only the inner one of the two members. The stopper (35) of the Akaike reference is not established to “at least partially surround” other parts, and it certainly cannot be said that it is adapted to at least partially surround “a first portion of a first elongated member and a second portion of a larger elongated member.”

- *“activating said compression enhancement element to force said larger elongated member compression surface towards said larger elongated member and to force said first elongated member compression surface towards said site on said first elongated member that is not within said larger elongated member, thereby retaining said first elongated member in said desired position”* – As explained above, the only part of the Akaike reference that could arguably be a “compression enhancement element” is part (55), the “operating tab portion.” But upon activating it, it does not force any compression surface whatsoever towards a “site on said first elongated member that is not within said larger elongated member.” Indeed, the

stopper (35) of Akaike, upon activation of the “operating tab portion” (55), does not have any surface that moves towards a site on the smaller diameter member (22 of Akaike) that is not within the larger diameter member (21 of Akaike). Even if the Akaike reference were deemed to include a compression surface as appears in claim 23 of the instant application and dependents, such surface clearly would move only towards a site on the smaller diameter tube that is within the larger diameter tube.

Because the Akaike reference does not disclose all limits of claim 23, a novelty rejection of claim 23 and its dependencies based on the Akaike reference is inappropriate.

IV. Novelty Relative to the Uthemann Reference:

In response to the examiner’s novelty rejection of all claims in the case (claims 1-41), the Applicant respectfully presents immediately following some of the ways in which the subject matter of each of the claims in the case is novel relative to the Uthemann reference.

a. Claims 1-22:

Claims 1-22 of the instant application are not disclosed by the Uthemann reference. The following are some of the limits of each of claims 1-22 (found explicitly in apparatus claim 1) that are not taught, disclosed or even suggested by the Uthemann reference. Additionally, a brief explanation is provided as to the non-disclosure in the Uthemann reference of the specific limit:

- “*a compression enhancement element established so that, upon activation, it forces said larger elongated member compression surface towards said larger elongated member, and said first elongated member compression surface towards a site on said first elongated member that is not within said larger elongated member*”: Simply, as explained above in the brief overview of the Uthemann apparatus, the Uthemann reference does not disclose any sleeve that has a surface that, during compression, is forced towards a site on the smaller tube (part 2 of Uthemann’s Figs.) that is not within the larger tube (part 1 of Uthemann’s Figs.). Fig. 3 of the instant application is an embodiment that reflects such claimed feature, and it is clear from the Uthemann reference that there is no movement of any surface towards a site on the smaller member that is not within the larger member.

Applicant would also note that it is this claim element - *“a compression enhancement element established so that, upon activation, it forces said larger elongated member compression surface towards said larger elongated member, and said first elongated member compression surface towards a site on said first elongated member that is not within said larger elongated member”* - which, in many embodiments, may play a role in avoiding the need to create the opening (4) in the larger tube found in Uthemann (through which Uthemann’s clamping member (3) passes), as shown in Uthemann’s Figs. 1, 2 or 3. Of course, as mentioned, avoiding the need to breach a tube (or other elongated member) in such fashion is a desirable manufacturing attribute.

Because the Uthemann reference does not disclose all limits of claim 1, a novelty rejection of claim 1 and its dependencies based on the Uthemann reference is inappropriate.

b. Claims 23-41:

In similar fashion, and for analogous reasons, the subject matter described by claims 23-41 of the instant application are also not disclosed by the Uthemann reference. The following are some of the limits of each of claims 23-41 (found explicitly in method claim 23) that are not taught, disclosed or even suggested by the Uthemann reference. Additionally, a brief explanation is provided as to the non-disclosure in the Uthemann reference of the specific limit:

- *“activating said compression enhancement element to force said larger elongated member compression surface towards said larger elongated member and to force said first elongated member compression surface towards said site on said first elongated member that is not within said larger elongated member, thereby retaining said first elongated member in said desired position”* – As explained above, the Uthemann reference does not disclose any sleeve that has a surface that, during compression, is forced towards a site on the smaller tube (part 2 of Uthemann’s Figs.) that is not within the larger tube (part 1 of Uthemann’s Figs.). Fig. 3 of the instant application is an embodiment that reflects such claimed feature, and it is clear from the Uthemann reference that there is no movement of any surface towards a site on the smaller member that is not within the larger member.

Because the Uthemann reference does not disclose all limits of claim 23, a novelty rejection of claim 23 and its dependencies based on the Uthemann reference is inappropriate.

V. Inventive Step:

As an inventive step rejection requires that each limit of the claimed subject matter be disclosed in at least one reference, either alone or in combination, the examiner's concerns regarding inventive step are inappropriate. Even if the supplied references did disclose the claimed subject matter (which Applicant certainly, as explained below, does not believe to be the case), the references cited by the examiner provide no suggestion or motivation whatsoever to combine them.

a. Claims 1-22: In response to the examiner's inventive step concerns as to claims 1-22, the Applicant would explain that, as explained above, neither the Akaike nor the Uthemann reference discloses the following limit: *"a compression enhancement element established so that, upon activation, it forces said larger elongated member compression surface towards said larger elongated member, and said first elongated member compression surface towards a site on said first elongated member that is not within said larger elongated member"*. The Applicant incorporates herein the explanations provided above as to why neither the Akaike reference nor the Uthemann reference discloses this limit (Sections III a and IV a).

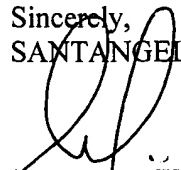
b. Claims 23-41: In response to the examiner's inventive step concerns as to claims 23-41, the Applicant would explain that, as explained above, neither the Akaike nor the Uthemann reference discloses the following limit: *"activating said compression enhancement element to force said larger elongated member compression surface towards said larger elongated member and to force said first elongated member compression surface towards said site on said first elongated member that is not within said larger elongated member, thereby retaining said first elongated member in said desired position"*. The Applicant incorporates herein the explanations provided above as to why neither the Akaike reference nor the Uthemann reference discloses this limit (Sections III b and IV b).

CONCLUSION:

The Applicants have addressed each of the concerns raised in the Written Opinion and respectfully request a completely favorable Preliminary Examination Report at the Examiner's earliest convenience.

Dated this 16th day of February, 2006.

Sincerely,
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